

1 action. Alternatively, the entire device may be placed in a centrifuge and spun, allowing the sample
to migrate through the capillary opening 3 and deposit the sample on the membrane opposite the
capillary opening 3. For making multiple dots (sample application), the reservoir-rack may be
rotated and /or flipped and reposition in the device. (as in Fig5, A to D) The device will be capable
5 of creating, for 96 position reservoir-rack, a total of $4 \times 96 = 384$ spots, i.e. an array of 384 sample
spots

The sample may be loaded into the reservoir by placing a pipetor into the open end 2 of the
9 reservoir and taking an aliquot of the sample through the capillary end 3 of the reservoir. Positioning
the reservoir on top of the membrane will allows the sample to diffuse into the membrane by
capillary action.

13 What I claim my intention is

1. A device for application of liquid sample on a membrane, comprising:
a reservoir having an open end and an end opposite the open end having a capillary opening,
17 wherein the open end is adapted to receive liquid samples;
a frame-means for securing the membrane for application of the liquid samples; and
a reservoir-rack for positioning said reservoir above the membrane surface such that the
capillary opening of the reservoir touches and contacts the membrane.
2. The device according to claim 1 wherein the reservoir is provided as an assembly of a
plurality of the reservoirs.
- 25 3. The device according to claim 1 wherein said reservoir-rack have through-holes for
positioning the reservoirs in the reservoir-rack .
4. The device according to claim 1 wherein the reservoir-rack consists of positions for at least
29 96 individual reservoirs.

- 1 5. The device according to claim 1 wherein said reservoir-rack has positions for the reservoirs asymmetrically placed.
- 5 6. The device according to claim 5 wherein said reservoir-rack is provided with a means to position the reservoir-rack into the device by at least two alternative ways producing two alternative footprints and the point of contacts on the membrane below for each reservoir position on the reservoir-rack.
- 9 7. The device according to claim 5 wherein said reservoir-rack is provided with a means to position the reservoir-rack into the device by at least four alternative ways producing four alternative footprints and the point of contacts on the membrane below for each reservoir position on the reservoir-rack.
- 13 8. The device according to claim 4 wherein the positions of the reservoir in said reservoir-rack is arranged in grid pattern such that it allows positioning of the reservoirs in columns and rows compatible with the application heads of the multi-sample pipetting devices common in the field and industry, (i.e. multi-channel pipetors).
- 17 9. The device according to claim 1 wherein the frame-means is provided with a means to secure the membrane in the frame-means and position the membrane opposite the reservoir-rack.
- 21 10. The device according to claim 1 wherein the frame-means is provided with grid marking for identifying the positions of each reservoir and/or the liquid sample applied on the membrane.
- 25 11. The device according to claim 1 wherein the capillary opening of the reservoir is a micro-pore opening protruding as a capillary tip from the main body of the reservoir.
- 29 12. The device according to claim 1 wherein the capillary opening of the reservoir has opening orifice narrow enough to prevent the free flow of the liquid samples out of the reservoir under the force of gravity.

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13. The device according to claim 1 wherein the open end of the reservoir is such that liquid samples may be loaded into the reservoir through the open end.

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14. The device according to claim 1 wherein the capillary opening of the reservoir allows flow of the liquid sample from the reservoir into the membrane by capillary action.

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15. The device according to claim 1 wherein the capillary opening of the reservoir allows flow of the liquid sample from the reservoir into the membrane by centrifugal action.

16. The device according to claim 1 wherein the capillary opening of the reservoir may be used for taking aliquots of liquid sample using a liquid sampling pipettor placed in the open end.

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17. The device according to claim 1 wherein said reservoir may be positioned on the multi-sample pipetting device common in the field and industry, (i.e. multi-channel pipettors) for taking an aliquot of liquid sample through the capillary opening for application of the liquid samples on the membrane.

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18. The device according to claim 1 wherein the capillary opening of the reservoir is a micro-pore opening.

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19. A device for application of liquid sample on a membrane, comprising:
a reservoir having an open end and an end opposite the open end having a capillary opening, wherein the open end is adapted to receive liquid samples and/or liquid pipetting devices for aliquoting the liquid sample through the capillary opening;
a frame-means for securing the membrane for application of the liquid samples; and
a reservoir-rack for positioning said reservoir above the membrane surface such that the capillary opening of the reservoir touches and contacts the membrane.

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